

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D. C.**

In the Matter of	)	
	)	
Provision of Improved	)	
Telecommunications Relay Services and	)	
Speech-to-Speech Services for Individuals	)	
with Hearing and Speech Disabilities	)	CC Docket No. 98-67
	)	
Americans with Disabilities Act of 1990	)	CG Docket No. 03-123
	)	

**COMMENTS OF THE PUBLIC SERVICE  
COMMISSION OF THE STATE OF MISSOURI**

The Public Service Commission of the State of Missouri (“MoPSC”) offers the following comments in response to the Federal Communication Commission’s (“Commission”) Second Report and Order, Order on Reconsideration, and Notice of Proposed Rulemaking (“NPRM”) released May 15, 2003 in the above docketed case. In the NPRM, the Commission continues its inquiry into Telecommunications Relay Service (TRS) technology and various improved services and features that may further the statutory goal of functional equivalency<sup>1</sup>, by seeking comment on matters that include new types of calls and new technologies, IP Relay and emergency preparedness. For ease in review, the comments are structured to follow the general format in the NPRM, but only those items in which the MoPSC offers comments are included.

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<sup>1</sup> 47 U.S.C. § 225(a)(3).

## **B. Mandatory Minimum Standards**

### **1. Operational Standards**

#### **a) Security of IP Relay Calls**

At paragraph five, the Commission seeks comment on whether IP Relay calls should be provided with the level of security using encryption that is commonly used in commercial transactions over the Internet. The Commission also seeks comment as to whether alternative security measures exist or are expected that could be used by IP Relay providers to ensure the security of IP Relay transmissions. Finally, the Commission seeks comment on whether encryption or alternative security measure can be best achieved without requiring registration, sign-ins, or passwords for IP Relay users. The MoPSC suggests that it may be appropriate to investigate whether the typical secure transaction technology already existing for Internet shopping can be adapted to IP Relay with little or additional expense. Such secure transaction technology is automatic and currently provides secure online shopping for billions of dollars of transactions, which should make communications using the IP Relay site sufficiently safe. In any case, Internet long distance calls placed by hearing users are just as subject to intercept as IP Relay. If a relay user's communication contains highly sensitive information, the user can make a traditional land line text telephone (TT) call, and forego IP Relay for that particular call.

#### **b) Emergency Call Handling over Wireless Networks.**

In this section of the NPRM, the Commission seeks comment on several issues more appropriately addressed by the industry. Therefore, the MoPSC expresses no comments on this section.

### **c) Non-English Language TRS**

The Commission notes in paragraph 11 of the NPRM that the Texas Public Utilities Commission filed a petition requesting the Commission to allow non-shared language relay translation service to be reimbursable from the Interstate TRS Fund. However, the Commission notes the petition is not clear as to whether the request is limited to Spanish-to-English conversations or multi-lingual relay service. Therefore, the Commission seeks comment on whether the Commission should allow TRS that employs a non-shared language translation service to be reimbursable from the Interstate TRS Fund and whether the provision of such a service is consistent with, or necessary under, our functional equivalency mandate. In addition, the Commission seeks comment on funding and implementation of such service.

Missouri's TRS provider already provides Spanish language relay services. As the Commission has noted, the goal for relay services is functional equivalency. No hearing caller can dial the number of a person who does not speak the same language as the caller, and have someone available, without charge, to translate the call. If the Commission decides to provide non-shared language translation service, it is not clear where the requirement would cease. Will the Commission allow reimbursement, not just for Spanish, but also Swedish, French, Swahili, German, Dutch, etc? Could it be construed as forcing TRS providers to request bids for Klingon translators, as Multnomah County, Oregon, recently did?

## **2. Technical Standards**

### **a) Speed of answer and Call Set-up Time**

### **b) TRS Facilities**

#### **1. Communication Access Real-time Translation**

The speed of a TRS call can be increased is by using communication access real-time translation (CART). CART is an instant translation of the spoken word into English using a stenotype machine, notebook computer and real-time software. The Commission seeks comment

to determine whether TRS providers should offer CART or CART-type services to improve the speed of TRS and requests detailed information regarding how CART, or similar technology and equipment, may be utilized by a TRS facility. Essentially, CART uses court reporters as communications assistants (CAs). This would be a very expensive offering. The Missouri Public Service Commission is billed approximately \$90 per hour when it uses real-time captioners, a similar service. CART would be faster, but as addressed later in the NPRM, since many TTs operate at 45 or 50 baudot, they would be unable to take advantage of the higher speeds anyway.

## **2. Interrupt Functionality**

The Commission previously sought comment on the technological feasibility of providing TRS consumers with interrupt functionality. This feature allows a TTY user to interrupt incoming text messages in order to convey a message back to the CA, so that the TRS conversation is more like a conventional telephone conversation in which each party can begin speaking before the other party has finished speaking. When a TTY user is typing, or is receiving, a TTY message, he or she cannot respond (*i.e.* type his or her message in return) until the sending party completely stops typing on their TTY. The current record before the Commission reflects that some TRS providers now offer some kind of interrupt functionality, which demonstrates that it is technologically feasible to do so. Therefore, the Commission now seeks information about how the interrupt functionality is being provided, whether any non-proprietary TTY protocols are able to support interrupt functionality, and consumer use of interrupt functionality.

The functionality is being provided through the use of TTs with "Turbo Code." Turbo Code is an Ultratec proprietary protocol. Missouri's TRS provider already offers interrupt

capability through Turbo Code. Other non-proprietary TT protocols that are able to support interrupt functionality should be mandated only if doing so will be less expensive to TRS providers than providing the functionality through Turbo Code.

### **3. Talking Return Call**

According to the NPRM, talking return call (or automatic call-back) is one telephone feature widely available in the United States to non-TRS users that could be available to TRS users if there was a change in the routing order of the TRS call. The Commission seeks comment on the feasibility of TRS providers offering such TRS services and whether the talking return call functionality should be required as a mandatory minimum standard. The MoPSC does not believe this is technologically feasible at this time. It would be fairly simple for the manufacturer of customer premise equipment to implement, however, it should be in a manner similar to the way a CapTel phone operates.

#### **c) Technology**

##### **1. Speech Recognition Technology**

The Commission previously sought comment on computer-assisted speech recognition technology, sometimes referred to as voice-to-text (VTT) technology, tailored for the TRS environment. Although several commenters suggested speech recognition technology could significantly shorten the time it takes for the voice caller's message to be converted into text, it does not have adequate information on the technology to require speech recognition technology as a minimum standard. Therefore, in this NPRM, the Commission seeks comment on the current status of the development of speech recognition technology. It also seeks comment on the extent, if any, to which TRS providers have already integrated speech recognition technology into their operations.

Several years ago, the Missouri TRS provider tested a voice-to-text system. At that time, the system did not work sufficiently for it to continue. Additionally, as in the case of CART, many TTs operating at around 60 words per minute, would not be able to take advantage of the additional speed that would be achieved.

## **2. Transmission Speed**

Similarly, according to the NPRM, TRS calls normally take four times as long as similar voice-to-voice calls. The Commission seeks comment on whether improved transmission speed for the TTY leg of calls through TRS is technologically feasible; and if so, what technical requirements are necessary to improve transmission speed and what additional challenges may be involved. The MoPSC believes that until the base of the TTs in circulation become capable of higher speeds, the impact of such changes would be largely ineffective. However, the MoPSC would encourage continued research into this technology.

### **D. Procedures for Determining TRS Providers' Eligibility for Receiving Payments from the Interstate TRS Fund**

Section 225 of the Telecommunications Act of 1996 requires the Commission to ensure that interstate and intrastate telecommunications relay services are available, to the extent possible and in the most efficient manner, to persons with hearing and speech disabilities in the United States.<sup>2</sup> To accomplish this goal, the Commission has examined issues related to traditional TRS, Speech-to-Speech relay (STS), and Video Relay Service (VRS). The Commission now seeks comment as to whether its rules governing the provision of TRS and the eligibility of TRS providers to receive compensation from the Interstate TRS Fund should be amended or modified. Currently there is no federal certification process so interstate TRS

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<sup>2</sup> 47 U.S.C. § 225(b)(1)

providers may seek reimbursement only after they have shown they are an approved provider in a state TRS program. Certification is currently left to the states.<sup>3</sup>

States, with only one exception, certify and pay one provider for TRS. The MoPSC suggests the costs to provide TRS could increase considerably if states are required to certify multiple providers of TRS services. Therefore, the MoPSC suggests no changes be implemented to the current procedure.

In summary, the MoPSC states the following: current, secure IP technology can and should be applied to IP relay; non-shared language translation should not be provided as a relay service; CART, voice-to-text, and other technologies to increase speed may provide benefits that would not be realized because of the limiting speeds of text telephones; and, non-proprietary interrupt service technologies should only be adopted if less expensive than Turbo Code. The MoPSC encourages continued research into these technologies and issues.

Respectfully submitted,

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<sup>3</sup> 47 C.F.R. § 225(b)(1).